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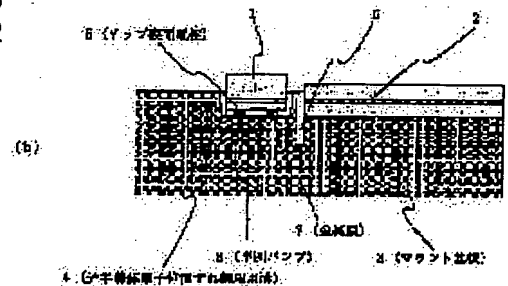
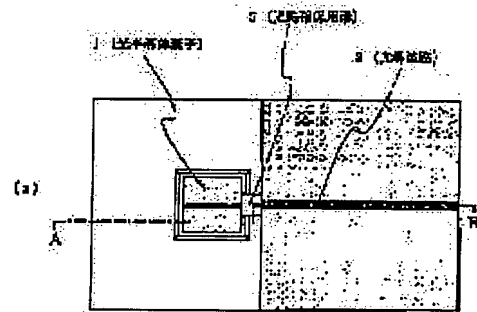
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## (54) OPTICAL SEMICONDUCTOR DEVICE

### (57) Abstract:

PURPOSE: To provide an optical semiconductor device in which an optical semiconductor element can be positioned with high accuracy without adjustment so as to improve the productivity of the device.

CONSTITUTION: In an optical semiconductor device which is provided with a mounting substrate 3 on which an optical waveguide 2 is formed and an optical semiconductor element 1 which is mounted on the substrate 3 and is optically coupled with the waveguide 2 and a rear-surface surface electrode 6 provided on the rear surface of the element 1 and a metallic film 7 formed on the substrate 3 are fixed with solder bumps 8, a recessed groove 4 is formed on the surface of the substrate 3 at the position to which the optical semiconductor element is fixed. Therefore, the occurrence of such a phenomenon that the electrode pattern of the element 1 is not connected to an electrode pattern on the substrate 3 due to the positional deviation of the element 1 before melting solder is eliminated.



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